

CLAIMS

1-28 (cancelled)

29. (new) A layered structural element for use in marine vessels, comprising two substantially parallel metal sheets spaced apart to define a void there between, wherein the void is filled with a layer of cementitious material having a density less than 1200 kg/m³, said element further comprising means for increasing bonding properties or connecting properties between the metal sheets and the cementitious layer.
30. (new) A structural element according to claim 29 wherein the means for increasing bonding properties or connecting properties are dowels extending from the inside surface of the metal sheets into the cementitious layer, an adhesive layer applied to the inside surface of the metal sheets, increasing the roughness of the inside surface of the metal sheets, or any combination of such means.
31. (new) A structural element according to claim 30, further comprising one or more elongated, hollow channel bodies arranged in the cementitious layer.
32. (new) A structural element according to claim 31, wherein the channel bodies are arranged to be load bearing when the structural element is employed as a structural element in a marine vessel.
33. (new) A structural element according to claim 32, wherein spacers are affixed to the channel bodies, such spacers arranged to center the channel bodies in the cementitious layer between the metal sheets.
34. (new) A structural element according to claim 33, wherein the channel bodies are closed at each end, and adapted for use as a compartment for storing liquids.

35. (new)A structural element according to claim 29, wherein a first of said metal sheets is corrugated, the second of said metal sheets is planar, wherein the second metal sheet is arranged against the corrugated sheet so as to form a plurality of elongated channels, said channels being filled with the cementitious material.
36. (new)A marine vessel constructed with structural elements according to any one of claims 29-35.
37. (new)A marine vessel according to claim 36, wherein the hull is constructed of said structural elements.
38. (new)A marine vessel according to claim 36, wherein one or more bulkheads are constructed of said structural elements.
39. (new)A marine vessel according to claim 36, wherein one or more of decks of the vessel are constructed of said structural elements.
40. (new)A marine vessel constructed with structural elements according to any one of claims 31-33, wherein the channel bodies are utilized as conduits for cables or piping.
41. (new)A marine vessel constructed with structural elements according to claim 34, wherein the compartments are used to store ballast water or fuel.
42. (new)A method for retrofitting a sheet metal structural element of a marine vessel, comprising arranging a supplemental metal sheet in substantially parallel alignment with the sheet metal structural element, connecting the supplemental metal sheet to the structural element so as to create a void there between, and filling said void with cementitious material having a density less than 1200 kg/m^3 .
43. (new)A method according to claim 42, wherein an aperture is arranged in the supplemental metal sheet near its vertical upper end through which the cementitious material may be filled.

44. (new)A method according to claim 43, wherein the sheet metal structural element is corrugated, wherein the supplemental metal sheet is planar, and wherein the planar sheet is affixed to the corrugated sheet such that a plurality of elongated channels are formed, and wherein the cementitious material is filled into such channels.